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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,205	04/12/2005	Bernd Roskopf	ROSS3007/EJD	4011

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EXAMINER
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NGUYEN, HOAI AN D

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

11A

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,205	<b>Applicant(s)</b> ROSSKOPF ET AL.	
	<b>Examiner</b> Hoai-An D. Nguyen	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2004 (preliminary amend).
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10, 11, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 12 and 15-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/14/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### *Drawings*

1. The drawings are objected to because empty boxes 1, 5, 7 and 12 in Figure 1 and empty boxes 1, 7a, 13 and 21 in Figure 2 need suitable descriptive legends (see MPEP §608.02 [R-2], Section V: DRAWING STANDARDS, item (n) and (o)). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 recites a limitation “the electrical current output” that is not defined in its independent claim 10 yet. It is not clear for the examiner to figure out what it is meant as there are two currents recited in claim 10: “a signal current” and “an electrical current-loop output”.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by DiMarzio et al. (US 5,994,898).

DiMarzio et al. discloses that:

With regard to claim 10, as is known in the art, a transmitter (transducer) comprising: a sensor that serves to register a physical quantity (non-electrical physical parameters) and convert such into an electrical quantity (i.e. current or voltage signals), electronics that convert the electrical quantity into a measurement signal (electrical resistance, inductance, or capacitance) and that make the measurement signal available over an electrical current-loop output in the form of a signal current corresponding to the physical quantity (Column 1, lines 27-50).

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In addition, DiMarzio et al. teaches an apparatus and method for measuring instantaneous power using a magneto-optic Kerr effect sensor comprising:

With regard to claim 10, a pick-up unit (FIG. 5, sensor 60) having a magnetoresistive element, whose resistance changes as a function of the magnetic flux produced by the signal current (Column 1, lines 27-50, from column 2, line 31 to column 3, line 2 and column 9, lines 29-39).

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiMarzio et al. in view of Fehrenbach et al. (US 2004/0183550).

DiMarzio et al. teaches all that is claimed as discussed in the above rejection of claim 10, but it does not specifically teach the following:

- A regulating circuit for adjustment of the signal current as a function of the measurement signal.
- The instantaneous signal current registered by means of said pick-up unit is fed to said regulating circuit for regulation of the physical-quantity-dependent, signal current.

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However, Fehrenbach et al. teaches a system for manufacturing a modularly structured apparatus for determining a physical process quantity, and standardized components comprising:

With regard to claim 11, a regulating circuit (FIG. 5, microprocessor 1011) for adjustment of the signal current as a function of the measurement signal (Page 12, paragraphs [0217]-[0220]).

With regard to claim 14, the instantaneous signal current registered by means of said pick-up unit (FIG. 5, microwave sensor) is fed to said regulating circuit (FIG. 5, microprocessor 1011) for regulation of the physical-quantity-dependent, signal current (Page 12, paragraphs [0217]-[0220]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus and method for measuring instantaneous power of DiMarzio et al. to incorporate the teaching of using a regulating circuit for adjustment of the signal current as a function of the measurement signal taught by Fehrenbach et al. since Fehrenbach et al. teach that such an arrangement is beneficial to receive information about the measured value from the digital printed circuit board and suitably control the current flowing on the current loop as disclosed in page 12, paragraphs [0217]-[0220].

#### ***Allowable Subject Matter***

8. Claims 12 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- The primary reason for the indication of the allowability of claim 12 is the inclusion therein, in combination as currently claimed, of the limitation of the regulating circuit having a transistor that is turned-on in operation by a measured-value-dependent control signal generated by the electronics. This limitation is found in claim 12 is neither disclosed nor taught by the prior art of record, alone or in combination.
- The primary reason for the indication of the allowability of claim 15 is the inclusion therein, in combination as currently claimed, of the limitation of a regulating behavior of the regulating circuit being adjustable by one or more adjustment variables (K1, K2, K3). This limitation is found in claim 15 is neither disclosed nor taught by the prior art of record, alone or in combination.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant's attention is invited to the followings whose inventions disclose similar devices.

- Acker et al. (US 6,253,770) teaches a catheter with lumen.
- Bernauer et al. (US 6,655,217) teaches a transmitter.
- Church (US 6,731,110) teaches a magneto-resistive device with built-in test structure and method for determining resistance and track width.
- Pfundlin et al. (US 2005/0149295) teaches a sensor arrangement.

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### CONTACT INFORMATION


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai-An D. Nguyen whose telephone number is 571-272-2170.

The examiner can normally be reached on M-F (8:00 - 5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HADN

  
**ANJAN DEB**  
**PRIMARY EXAMINER**

Hoai-An D. Nguyen  
Examiner  
Art Unit 2858  
